AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of claims:

1 - 78. (cancelled without prejudice)

79. (previously presented) A computer based method of building predictive models from data, comprising:

aggregating data representative of an enterprise with one or more elements of value from a plurality of systems;

preparing said data for use in processing by:

(a) transforming said element of value data in accordance with one or more pre-programmed functions;

(b) establishing a plurality of input nodes, a plurality of hidden nodes and an output node for a neural network model for each aspect of financial performance;

(c) inputting raw and transformed data into each neural network model using a separate input node for untransformed data and data that have been transformed by each pre-programmed transformation function by element of value for all time periods in the series;

(d) training each neural network model using said inputs until an error function associated with an output value that corresponds to an aspect of financial performance is minimized;

(e) using one or more weights from trained neural network models to identify a set of high correlation raw and transformed data by element of value for use in an analysis of element of value behavior or performance,

(f) refining the set of raw and transformed data by element of value,

(g) creating a summary of the refined data set for each element of value, and

(h) evolving the neural network model for each aspect of financial performance to an optimal state by using the element of value summaries as inputs and training each model with a series of genetic algorithms that exchange said data between different generations of independent subpopulations during training

where the set of high correlation raw and transformed data comprises a plurality of statistical indicators of an element of value performance,

where the aspects of financial performance are selected from the group consisting of revenue, expense and capital change, and

where the predictive models of aspects of financial performance are useful for completing tasks selected from the group consisting of optimizing a current operation financial performance for a business, predicting an impact of one or more changes to a current operation financial performance, calculating a current operation value contribution for an element of value, determining an impact of an element of value, identifying rules for improving performance, completing a forecast and combinations thereof.

80. (previously presented) The method of claim 79 where a plurality of input nodes is set equal to one plus the number of elements of value.

81. (previously presented) The method of claim 79 where a plurality of hidden nodes is set equal to one plus the number of input nodes.

82. (previously presented) The method of claim 79, where an error function further comprises $ERR\ (W)_k = 1/2\ (R_k - Y(W))^2$, where W comprises a set of weights that the error function evaluates, where Y(W) comprises the output of the model for the set of weights being evaluated, where K comprises the time period being evaluated and where R comprises the actual or forecast value of the aspect of financial performance being modeled.

83. (previously presented) The method of claim 79 where a set of raw and transformed data that will be used as an input to a predictive model further comprises a set of numbers.

84. (previously presented) The method of claim 79 where a neural network model comprises a non-linear, time series model.

85. (previously presented) The method of claim 79 where training a neural network model further comprises using a series of genetic algorithm to complete the training where a population being analyzed is partitioned into a plurality of subpopulations, with each subpopulation being processed by a genetic algorithm independently of the other generations and where a migration mechanism produces a chromosome exchange between different generations of the subpopulations.

86. (previously presented) The method of claim 79 where training a neural network model further comprises using a back propagation algorithm to complete the training.

87. (previously presented) The method of claim 79 where one or more elements of value further comprise elements of value selected from the group consisting of brands, customers, employees, partners, vendors and combinations thereof.

88. (previously presented) The method of claim 79 where a plurality of systems comprise systems selected from the group consisting of advanced financial systems, basic financial systems, operation management systems, sales management systems, human resource systems, accounts receivable systems, accounts payable systems, capital asset systems, inventory systems, invoicing systems, payroll systems, purchasing systems, the Internet and combinations thereof.

89. (previously presented) The method of claim 79 where a series of time periods contains time periods selected from the group consisting of historical time periods, future time periods and combinations thereof.

90. (previously presented) The method of claim 79 where the one or more pre programmed functions are selected from the group consisting of average, rolling average, time delay, trend, average time delay, rolling average time delay, ratio, average ratio, rolling average ratio, slope, average slope, rolling average slope and combinations thereof.

91. (previously presented) The method of claim 79 where training a neural network model further comprises using a genetic algorithm to complete the training where a population being analyzed is partitioned into a plurality of subpopulations, with each subpopulation being processed by a genetic algorithm independently of the others and where a selective crossover and a fitness measure rescaling produces a chromosome exchange between different generations of the subpopulations.

92. (currently amended) A program storage device readable by a computer, tangibly embodying a program of instructions executable by at least one computer to perform the steps in a predictive model method, comprising:

aggregating data representative of an enterprise with one or more elements of value from a plurality of systems;

preparing said data for use in processing by:

(a) transforming said ~~element of value~~ data in accordance with one or more pre-programmed functions;

(b) establishing a plurality of input nodes, a plurality of hidden nodes and an output node for a neural network model for revenue, expense and capital change ~~each aspect of financial performance~~;

(c) inputting raw and transformed data into each neural network model using a separate input node for untransformed data and data that have been transformed by each pre-programmed transformation function by element of value for all time periods in the series;

(d) training each neural network model using said inputs until an error function associated with an output value that corresponds to an aspect of financial performance is minimized;

(e) using one or more weights from trained neural network models to identify a set of high correlation raw and transformed data by element of value for use in analysis,

(f) refining the set of raw and transformed data by element of value,

(g) creating a summary of the refined data set for each element of value, and

(h) generating an optimized neural network model for each aspect of financial performance by using the element of value summaries as inputs and using a series of genetic algorithms to train each model by exchanging said data between different generations of independent subpopulations during training

where the set of high correlation raw and transformed data comprises a plurality of statistical indicators of an element of value performance,

~~where the aspects of financial performance are selected from the group consisting of revenue, expense and capital change,~~ and

where the predictive models of aspects of financial performance are useful for completing tasks selected from the group consisting of optimizing a current operation financial performance for a business, predicting an impact of one or more changes to a current operation financial performance, calculating a current operation value contribution for an element of value determining an impact of an element of value, identifying rules, completing a forecast and combinations thereof.

93. (previously presented) The program storage device of claim 92 where a plurality of input nodes is set equal to one plus the number of elements of value times one plus the number of pre-programmed functions used to transform data.

94. (previously presented) The program storage device of claim 92 where a plurality of hidden nodes is set equal to one plus the number of input nodes.

95. (previously presented) The program storage device of claim 92, where an error function further comprises $ERR(W)_k = 1/2 (R_k - Y(W))^2$, where W comprises a set of weights that the error function evaluates, where Y(W) comprises the output of the model for the set of weights being evaluated, where K comprises the time period being evaluated and where R comprises the actual or forecast value of the aspect of financial performance being modeled.

96. (previously presented) The program storage device of claim 92 where a set of raw and transformed data that will be used as an input to a predictive model further comprises a set of numbers.

97. (previously presented) The program storage device of claim 92 where a neural network model comprises a non-linear, regression model.

98. (previously presented) The program storage device of claim 92 where training a neural network model further comprises using a series of genetic algorithm to complete the training where a population being analyzed is partitioned into a plurality of subpopulations, with each subpopulation being processed by a genetic algorithm independently of the other generations and where a migration mechanism produces a chromosome exchange between different generations of the subpopulations.

99. (previously presented) The program storage device of claim 92 where training a neural network model further comprises using a back propagation algorithm to complete the training.

100. (previously presented) The program storage device of claim 92 where one or more elements further comprise elements of value selected from the group consisting of brands, customers, employees, partners, vendors and combinations thereof.

101. (previously presented) The program storage device of claim 92 where a plurality of systems comprise systems selected from the group consisting of advanced financial systems, basic financial systems, operation management systems, sales management systems, human resource systems, accounts receivable systems, accounts payable systems, capital asset systems, inventory systems, invoicing systems, payroll systems, purchasing systems, the Internet and combinations thereof.

102. (previously presented) The program storage device of claim 92 where a series of time periods contains time periods selected from the group consisting of historical time periods, future time periods and combinations thereof.

103. (previously presented) The program storage device of claim 92 where the one or more pre programmed functions are selected from the group consisting of average, rolling average, time delay, trend, average time delay, rolling average time delay, ratio, average ratio, rolling average ratio, slope, average slope, rolling average slope and combinations thereof.

104. (previously presented) The program storage device of claim 92 where the method further comprises: training a neural network by using a series of genetic algorithm to complete the training where a population being analyzed is partitioned into a plurality of subpopulations, with each subpopulation being processed by a genetic algorithm independently of the others and where a selective crossover and a fitness measure rescaling produces a chromosome exchange between different generations of the subpopulations.

105. (previously presented) An apparatus for building predictive models from data, comprising:

(a) a plurality of systems containing data representative of an enterprise with one or more elements of value,

(b) means for storing and processing said data,

(c) means for preparing said data from said systems for use in processing by creating a summary of an element of value performance for each element of value using said data; and

(d) means for developing an optimized neural network model for each aspect of financial performance by using the element of value summaries as inputs and training each model using a series of genetic algorithms

where the summary of element of value performance comprises a summary of a plurality of statistical indicators of an element of value performance, and

where the aspects of financial performance are selected from the group consisting of revenue, expense and capital change.

106. (previously presented) The apparatus of claim 105 where a plurality of input nodes is set equal to one plus the number of elements times one plus the number of pre-programmed functions used to transform data.

107. (previously presented) The apparatus of claim 105 where a plurality of hidden nodes is set equal to one plus the number of input nodes.

108. (previously presented) The apparatus of claim 105, where an error function further comprises ERR $(W)_k = 1/2 (R_k - Y(W))^2$, where W comprises a set of weights that the error function evaluates, where Y(W) comprises the output of the model for the set of weights being evaluated, where K comprises the time period being evaluated and where R comprises the actual or forecast value of the aspect of financial performance being modeled.

109. (previously presented) The apparatus of claim 105 where a set of raw and transformed data that will be used as an input to a predictive model further comprises a set of numbers.

110. (previously presented) The apparatus of claim 105 where a neural network model comprises a time series, regression model.

111. (previously presented) The apparatus of claim 105 where training a neural network model further comprises using a series of genetic algorithm to complete the training where a population being analyzed is partitioned into a plurality of subpopulations, with each subpopulation being processed by a genetic algorithm independently of the other generations and where a migration mechanism produces a chromosome exchange between different generations of the subpopulations.

112. (previously presented) The apparatus of claim 105 where training a neural network model further comprises using a back propagation algorithm to complete the training.

113. (previously presented) The apparatus of claim 105 where one or more elements further comprise elements of value selected from the group consisting of brands, customers, employees, partners, vendors and combinations thereof.

114. (previously presented) The apparatus of claim 105 where a plurality of systems comprise systems selected from the group consisting of advanced financial systems, basic financial systems, operation management systems, sales management systems, human resource systems, accounts receivable systems, accounts payable systems, capital asset systems, inventory systems, invoicing systems, payroll systems, purchasing systems, the Internet and combinations thereof.

115. (previously presented) The apparatus of claim 105 where a series of time periods contains time periods selected from the group consisting of historical time periods, future time periods and combinations thereof.

116. (previously presented) The apparatus of claim 105 where the one or more pre programmed functions are selected from the group consisting of average, rolling average, time delay, trend, average time delay, rolling average time delay, ratio, average ratio, rolling average ratio, slope, average slope, rolling average slope and combinations thereof.

117. (previously presented) The apparatus of claim 105 where preparing data for use in processing further comprises integrating, converting and storing data from a plurality of systems in accordance with a common data dictionary.

118. (previously presented) The apparatus of claim 105 that further comprises: means for training a neural network by using a genetic algorithm to complete the training where a population being analyzed is partitioned into a plurality of subpopulations, with each subpopulation being processed by a genetic algorithm independently of the others and where a selective crossover and a fitness measure rescaling produces a chromosome exchange between different generations of the subpopulations.

119 - 164. (cancelled without prejudice)